

CLAIMS

What is claimed is:

- 5 1. A system for making and securing fine adjustment of angular position of a clamp on a shaft, comprising:
- a) a shaft having a transverse bore;
- b) a clamp formed as a collar for encircling said shaft, said collar having a means for compressing said collar against said shaft to secure said clamp to said shaft, said
- 10 collar having an axially slotted first opening proximal to said shaft bore; and
- c) an adjustment pin disposed in said shaft bore through said first opening and having an eccentric for engaging a wall of said first opening to cause a change in said angular position of said clamp on said shaft when said adjustment pin is rotated.
- 15 2. A system in accordance with Claim 1 wherein said eccentric includes an eccentric head.
3. A system in accordance with Claim 1 wherein said bore extends through said shaft, said collar includes a second opening opposite said first opening,
- 20 and said pin includes a threaded portion extending through said bore and said second opening for receiving a retaining nut.
4. A system in accordance with Claim 1 wherein said clamp is a control arm clamp for a variable valve actuation device and said shaft is a control shaft for said
- 25 variable valve actuation device.
5. A system in accordance with Claim 4 wherein said variable valve actuation device is a component of an internal combustion engine.

6. A system for making and securing fine adjustment of angular position of a control-arm clamp on a control shaft in a variable valve actuation device, comprising:

a) a shaft having a transverse bore;

b) a clamp formed as a collar for encircling said shaft, said collar having means for compressing said collar against said shaft to secure said clamp to said shaft, said collar having an axially slotted first opening proximal to said shaft bore; and

c) an adjustment pin disposed in said shaft bore through said first opening and having eccentric for engaging a wall of said first opening to cause a change in said angular position of said clamp on said shaft when said adjustment pin is rotated.

7. An internal combustion engine comprising a system for variable activation of one or more engine valves, said system including

a shaft having a transverse bore,

a clamp formed as a collar for encircling said shaft, said collar having means for compressing said clamp against said shaft to secure said clamp to said shaft, said collar having an axially slotted first opening proximal to said shaft bore, and

an adjustment pin disposed in said shaft bore through said first opening and having eccentric means for engaging a wall of said first opening to cause a change in said angular position of said clamp on said shaft when said adjustment pin is rotated.

8. A system for making and securing fine adjustment of angular position of a collar on a shaft, comprising:

a) a shaft having a transverse bore;

b) a collar encircling said shaft, said collar having an axially slotted first opening proximal to said shaft bore; and

c) an adjustment pin disposed in said shaft bore through said first opening and having an eccentric for engaging a wall of said first opening to cause a change in said angular position of said collar on said shaft when said adjustment pin is rotated.

9. A system in accordance with Claim 8 wherein said bore extends through said shaft, said collar includes a second opening opposite said first opening, and said pin includes a threaded portion extending through said bore and said second opening for receiving a retaining nut.

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10. A method for making an adjustment of angular position of a collar on a shaft, comprising:

a) securing a shaft having a transverse bore;

b) encircling a collar around said shaft, said collar having an axially slotted first opening proximal to said shaft bore;

c) inserting an adjustment pin in said shaft bore through said first opening, said pin having an eccentric for engaging a wall of said first opening to cause a change in said angular position of said collar on said shaft when said adjustment pin is rotated; and

d) rotating said adjustment pin to change said angular position of the collar on the shaft.